# WEST Search History

DATE: Thursday, October 16, 2003

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=USPT; PLUR=YES; OP=AND* | | |
| L1 | protozo$.clm. same ph.clm. | 4 | L1 |
| L2 | protozo$ same ph not l1 | 201 | L2 |
| L3 | protozo$ near50 ph not l1 | 49 | L3 |

END OF SEARCH HISTORY

```
*File 155: Medline has been reloaded and accession numbers have
changed.  Please see HELP NEWS 155.

      Set  Items  Description
      ---  -----  -----------
Cost is in DialUnits
?ds

Set     Items   Description
S1       1106   (VAGIN? OR URETHR?) (50N) (URIN? OR PUS OR EXUDA? OR SAMPL-
            E?) (50N) PH
S2        339   S1 AND VAGIN?
S3        856   S1 AND URETHR?
S4         28   S1 AND SALINE?
S5          3   S4 AND MICROSCOP?
S6          4   S1 AND LOOP?
S7          2   (LOOP? (5N) (SAMPLE? OR URIN? OR PUS? OR EXUDAT? OR FLUID?-
             )) AND (PROTOZO? OR MICROSPORID? OR TRICHOMON?)
S8        997   LOOP? (5N) (SAMPLE? OR URIN? OR PUS? OR EXUDAT? OR FLUID?)
S9          2   S8 AND (URETHRITIS? OR GONAD? OR PENIS? OR PENAL?)
?s s8 and cath?
            997  S8
         156830  CATH?
    S10      23  S8 AND CATH?
?t s10/9/all
```

```
?ds

Set      Items   Description
S1      492599   REVIEW? OR TUTOR?
S2        1475   MICROSPORID?
S3          81   S1 AND S2
?s s3 and human?
                81  S3
           8209174  HUMAN?
      S4        71  S3 AND HUMAN?
?s s4 and protoz?
                71  S4
             32527  PROTOZ?
      S5        33  S4 AND PROTOZ?
?t s5/9/all
```

08678752 95367357 PMID: 7640091

**Ultrasonically guided insertion of a peritoneo-gastric shunt in patients with malignant ascites.**

Lorentzen T; Sengelov L; Nolsoe C P; Khattar S C; Karstrup S; von der Maase H

Department of Ultrasound, Herlev Hospital, University of Copenhagen, Denmark.

Acta radiologica (Stockholm, Sweden - 1987) (DENMARK) Sep 1995, 36 (5) p481-4, ISSN 0284-1851 Journal Code: 8706123

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

PURPOSE: A new method for internal drainage of malignant ascites is presented in 5 patients with symptomatic malignant ascites. MATERIAL AND METHODS: US-guided percutaneous gastrostomy and paracentesis were performed using the Seldinger technique. A 2.5-mm Cope- **loop catheter** was inserted in the **fluid** -filled stomach. In the lower abdomen the proximal part of a Denver peritoneo-venous shunt was introduced after dilation up to 4.8 mm. The pump chamber was sutured to the skin. The distal part of the Denver shunt was cut a few cm from the pump chamber and connected to the gastrostomy **catheter** . When pumping, ascites is shunted to the stomach lumen. RESULTS: The insertion presented no complications, and all shunt systems initially functioned well. However, the shunts had to be removed within the first 2 weeks because of mechanical problems such as clotting, leakage, and peritoneal septum formation. No infections were reported. CONCLUSION: The peritoneo-gastric shunt may present a therapeutic alternative in selected patients, but the mechanical problems have first to be solved.

Tags: Female; Human

**10/9/18**
DIALOG(R)File 155:MEDLINE(R)


03630544 82041175 PMID: 7197424
Loop **suction biopsy of the** urinary **bladder]**
Die Osensaugbiopsie der Harnblase.
Volter D; Keller A J
Der Urologe. Ausg. A (GERMANY, WEST) Sep 1981, 20 (5) p278-81,
ISSN 0340-2592 Journal Code: 1304110
Document type: Journal Article ; English Abstract
Languages: GERMAN
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
During the last year we used a selective **catheter** cell aspiration method besides lavage cytology of the bladder. We used a special 7 Charr. Teflon **catheter** with a metal scraper at its tip. In our clinical experience we see the following advantages of selective **catheter** cell aspiration: 1. there are no artificial changes in cells caused by urine effects. 2. large and intact cell clusters can be aspirated from the bladder mucous membrane. 3. selective aspiration of cell clusters from suspicious areas of the bladder now is possible. Lavage urine samples include all kinds of cells of the whole urinary tract. No cystoscopic examination is necessary. In special cases we use selective **catheter** cell aspiration in addition to lavage urine for cytologic examination.
Tags: Human
Descriptors: *Biopsy, Needle--methods--MT; *Bladder--pathology--PA; Bladder Neoplasms--pathology--PA; Carcinoma, Papillary--pathology--PA
Record Date Created: 19811221
Record Date Completed: 19811221

1: J Eukaryot Microbiol. 1994 Sep-Oct;41(5):61S.



# Male genital tract microsporidiosis and AIDS: p abscess due to Encephalitozoon hellem.

**Schwartz DA, Visvesvara G, Weber R, Bryan RT.**

Dept. Pathol., Emory Univ., Atlanta, GA.

PMID: 7804260 [PubMed - indexed for MEDLINE]

1: Infection. 2001 Aug;29(4):237-9. Related Art

Infection

Entrez PubMed

# Dual microsporidial infection with Encephalitozo cuniculi and Enterocytozoon bieneusi in an HIV-patient.

**Weitzel T, Wolff M, Dabanch J, Levy I, Schmetz C, GS, Sobottka I.**

PubMed Services

Dept. of Medicine (Infectious Diseases), Charite, Humboldt-University, Berlin, Germany. thomas.weitzel@c

This report describes the first dual microsporidial infec Encephalitozoon cuniculi and Enterocytozoon bieneusi in HIV-positive patient. In view of clinical and epidemiologi our E. cuniculi isolate was deduced to be of the dog strai patient's occupational involvement with dogs indicates th should be considered as a reservoir of human infections microsporidial species. Furthermore, our report provides clinical and radiological information on a rare case of a sy pulmonary infection by E. cuniculi and its improvement af treatment with albendazole.

Related Resources

PMID: 11545489 [PubMed - indexed for MEDLINE]

13977788 22250805 PMID: 12364371
**History of** human **parasitology.**
Cox F E G; et al
Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London WC1E 7HT, United Kingdom. frank.cox@lshtm.ac.uk
Clinical microbiology reviews (United States) Oct 2002, 15 (4) p595-612, ISSN 0893-8512 Journal Code: 8807282
Document type: Historical Article; Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS

**Humans** are hosts to nearly 300 species of parasitic worms and over 70 species of **protozoa** , some derived from our primate ancestors and some acquired from the animals we have domesticated or come in contact with during our relatively short history on Earth. Our knowledge of parasitic infections extends into antiquity, and descriptions of parasites and parasitic infections are found in the earliest writings and have been confirmed by the finding of parasites in archaeological material. The systematic study of parasites began with the rejection of the theory of spontaneous generation and the promulgation of the germ theory. Thereafter, the history of **human** parasitology proceeded along two lines, the discovery of a parasite and its subsequent association with disease and the recognition of a disease and the subsequent discovery that it was caused by a parasite. This **review** is concerned with the major helminth and **protozoan** infections of **humans** : ascariasis, trichinosis, strongyloidiasis, dracunculiasis, lymphatic filariasis, loasis, onchocerciasis, schistosomiasis, cestodiasis, paragonimiasis, clonorchiasis, opisthorchiasis, amoebiasis, giardiasis, African trypanosomiasis, South American trypanosomiasis, leishmaniasis, malaria, toxoplasmosis, cryptosporidiosis, cyclosporiasis, and **microsporidiosis** . (281 Refs.)
Tags: Animal; **Human** ; Support, Non-U.S. Gov't
Descriptors: Helminthiasis--history--HI; * **Protozoan** Infections--history --HI; Civilization; Emigration and Immigration; Evolution; Helminths --isolation and purification--IP; History of Medicine, 19th Cent.; History of Medicine, 20th Cent.; History of Medicine, Ancient; Parasitology --history--HI; **Protozoa** --isolation and purification--IP
Record Date Created: 20021004
Record Date Completed: 20021120

**5/9/2**
DIALOG(R)File 155:MEDLINE(R)


11773707 99212048 PMID: 10194459
**Molecular techniques for detection, species differentiation, and phylogenetic analysis of** microsporidia .
Franzen C; Muller A
Department of Internal Medicine I, University of Cologne, 50924 Cologne, Germany.Caspar.Franzen@Uni-Koeln.de
Clinical microbiology reviews (UNITED STATES) Apr 1999, 12 (2) p243-85, ISSN 0893-8512 Journal Code: 8807282
Document type: Journal Article; Review; Review, Academic
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV

**Microsporidia** are obligate intracellular **protozoan** parasites that infect a broad range of vertebrates and invertebrates. These parasites are now recognized as one of the most common pathogens in **human** immunodeficiency virus-infected patients. For most patients with infectious diseases, microbiological isolation and identification techniques offer the most rapid and specific determination of the etiologic agent. This is not a suitable procedure for **microsporidia** , which are obligate intracellular parasites requiring cell culture systems for growth. Therefore, the

diagnosis of **microsporidiosis** currently depends on morphological demonstration of the organisms themselves. Although the diagnosis of **microsporidiosis** and identification of **microsporidia** by light microscopy have greatly improved during the last few years, species differentiation by these techniques is usually impossible and transmission electron microscopy may be necessary. Immunfluorescent-staining techniques have been developed for species differentiation of **microsporidia** , but the antibodies used in these procedures are available only at research laboratories at present. During the last 10 years, the detection of infectious disease agents has begun to include the use of nucleic acid-based technologies. Diagnosis of infection caused by parasitic organisms is the last field of clinical microbiology to incorporate these techniques and molecular techniques (e.g., PCR and hybridization assays) have recently been developed for the detection, species differentiation, and phylogenetic analysis of **microsporidia** . In this paper we **review** **human** **microsporidial** infections and describe and discuss these newly developed molecular techniques. (397 Refs.)

Tags: Animal; **Human** ; Support, Non-U.S. Gov't

Descriptors: *Microspora--genetics--GE; DNA, **Protozoan** --analysis--AN; Microspora--classification--CL; Microspora--isolation and purification--IP ; **Microsporidiosis** --complications--CO; **Microsporidiosis** --diagnosis--DI ; **Microsporidiosis** --therapy--TH; Nucleic Acid Hybridization; Phylogeny; Polymerase Chain Reaction

CAS Registry No.: 0 (DNA, Protozoan)

Record Date Created: 19990429

Record Date Completed: 19990429

**5/9/3**

DIALOG(R)File 155:MEDLINE(R)



11491516 98375660 PMID: 9709895

**Detection of Enterocytozoon bieneusi in two** human **immunodeficiency virus-negative patients with chronic diarrhea by polymerase chain reaction in duodenal biopsy specimens and** review .

Gainzarain J C; Canut A; Lozano M; Labora A; Carreras F; Fenoy S; Navajas R; Pieniazek N J; da Silva A J; del Aguila C

Servicio de Medicina Interna, Hospital Santiago Apostol, Vitoria, Spain.

Clinical infectious diseases - an official publication of the Infectious Diseases Society of America (UNITED STATES) Aug 1998, 27 (2) p394-8, ISSN 1058-4838 Journal Code: 9203213

Document type: Journal Article; Review; Review Literature

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

Intestinal **microsporidiosis** has been associated traditionally with severely immunocompromised patients with AIDS. We describe two new cases of intestinal **microsporidiosis** due to Enterocytozoon bieneusi in **human** immunodeficiency virus-negative adults. Both patients presented with chronic nonbloody diarrhea, and one had intestinal lymphangiectasia as well. Intestinal **microsporidiosis** was diagnosed by evaluation of stool samples, and the specific species was determined by use of polymerase chain reaction (PCR) in duodenal biopsy specimens. To our knowledge, this is the first report of confirmation of E. bieneusi in the intestinal epithelium of HIV-negative individuals by use of PCR in duodenal biopsy specimens. Cases of intestinal **microsporidiosis** in HIV-negative individuals reported in the English-language literature are **reviewed** . These two new cases along with those described previously corroborate the need to evaluate for **microsporidia** in HIV-negative individuals with unexplained diarrhea. (27 Refs.)

Tags: Animal; Case Report; Female; **Human** ; Male; Support, Non-U.S. Gov't

Descriptors: Diarrhea--parasitology--PS; *Duodenum--parasitology--PS; * **Microsporida** --isolation and purification--IP; * **Microsporidiosis** --diagnosis--DI; Adult; Aged; Biopsy; Chronic Disease; DNA, **Protozoan** --isolation and purification--IP; Duodenum--pathology--PA; HIV Seronegativity; **Microsporida** --genetics--GE; Polymerase Chain Reaction

CAS Registry No.: 0 (DNA, Protozoan)

Record Date Created: 19981027
Record Date Completed: 19981027

**5/9/4**
DIALOG(R)File 155:MEDLINE(R)


11341739 98221793 PMID: 9561022
**[Laboratory diagnosis of intestinal micro-parasitosis in AIDS patients: state of the art]**
Diagnosi di laboratorio delle microparassitosi intestinali in pazienti affetti da AIDS: stato dell'arte.
Terra L; Pellicano S; Milano M
Ospedale S. Giovanni di Dio, Divisione di Malattie Infettive, ASL n. 5, Crotone.
Minerva medica (ITALY) Jan-Feb 1998, 89 (1-2) p23-7, ISSN 0026-4806 Journal Code: 0400732
Document type: Journal Article; Review; Review of Reported Cases ; English Abstract
Languages: ITALIAN
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
BACKGROUND: The diarrhea, often associated with growing thin and weight loss, is important for nutritional state and quality of life in AIDS patients. It was demonstrated that patients with AIDS who present diarrhea have a greater degree of immunosuppression than those without diarrhea, predisposing the gastrointestinal tract to the action of **protozoa** , bacterial, viral, fungal pathogens which may cause morbidity and death. HIV-patients are particularly susceptible to **protozoa** infections. Cryptosporidium infection is among the most common causes of enteric disease but **Microsporidium** (Enterocytozon bieneusi) and Cyclospora are emerging as potentially important enteric pathogens in AIDS patients. In spite of frequent interest of gastrointestinal tract the knowledge of diarrhea syndromes AIDS-related are often greatly limited by diagnostic difficulties. OBJECTIVE: A **review** is made of the different laboratory methods employed in intestinal microparasitosis in the light of considerable dangerousness and aggressiveness of some **protozoa** on HIV-patients. METHODS: The methods for the diagnosis of intestinal microparasitosis are based particularly on direct diagnosis (macroscopic or microscopic examination at fresh or after concentration) or an immunological diagnosis. RESULTS: The laboratory methods available at present permit to evidence different **protozoa** not evidenced in the past and without invasive techniques. CONCLUSIONS: The etiological diagnosis of diarrhea in AIDS-patients is often difficult and/or disappointing. Epidemiological knowledge on **protozoa** pathology has been limited by diagnostic difficulties but their identification is important particularly because an increasing therapeutic regimens are now available to treat these infections. (31 Refs.)
Tags: **Human** ; Male
Descriptors: *AIDS-Related Opportunistic Infections--parasitology--PS; *Diarrhea--parasitology--PS; *Intestinal Diseases, Parasitic--parasitology --PS; Laboratory Techniques and Procedures
Record Date Created: 19980430
Record Date Completed: 19980430

**5/9/5**
DIALOG(R)File 155:MEDLINE(R)


11334861 98214697 PMID: 9554079
Microsporidiosis : **molecular and diagnostic aspects.**
Weiss L M; Vossbrinck C R
Department of Pathology, Albert Einstein College of Medicine, Bronx, NY 10461, USA.
Advances in parasitology (ENGLAND) 1998, 40 p351-95, ISSN 0065-308X Journal Code: 0370435

Document type: Journal Article; Review; Review, Academic
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV

The term ' **microsporidia** ' is a nontaxonomic designation which is used to refer to a group of intracellular parasites belonging to the phylum Microspora. These eukaryotic obligate intracellular **protozoans** have been described infecting every major animal group, especially insects, fish and mammals. They are important agricultural parasites in commercially important insects, fish, laboratory rodents, rabbits, fur-bearing animals, and primates. There is now an increasing recognition of **microsporidia** as important opportunistic pathogens in persons infected with the **human** immunodeficiency virus (HIV). **Microsporidia** possess ribosomes with features resembling prokaryotes. Phylogenetic analysis of the rRNA sequence from several of the **microsporidia** suggests that these organisms were early branches in the eukaryotic evolutionary line. The data on these molecular phylogenetic relationships are **reviewed** in this paper. Inroads have recently been made into the molecular biology of these organisms and these data are also presented. Diagnosis of **microsporidia** infection from stool examination is possible and has replaced biopsy as the initial diagnostic procedure in many laboratories. These staining techniques can be difficult, however, due to the small size of the spores. The specific identification of **microsporidian** species has classically depended on ultrastructural examination. With the cloning of the rRNA genes from the **human** pathogenic **microsporidia** it has been possible to apply polymerase chain reaction (PCR) techniques for the diagnosis of **microsporidial** infection at the species level. Both staining and PCR techniques for the diagnosis of **microsporidia** are **reviewed** . (200 Refs.)

Tags: Animal; **Human**

Descriptors: **Microsporida** --isolation and purification--IP; * **Microsporidiosis** --diagnosis--DI; Antibodies, **Protozoan** ; Antigens, **Protozoan** ; DNA, **Protozoan** ; Genes, **Protozoan** ; **Microsporida** --classification--CL; **Microsporida** --genetics--GE; Phylogeny

CAS Registry No.: 0 (Antibodies, Protozoan); 0 (Antigens, Protozoan); 0 (DNA, Protozoan)

Record Date Created: 19980520
Record Date Completed: 19980520

**5/9/6**

DIALOG(R)File 155:MEDLINE(R)


11144292 98020082 PMID: 9357233

Protozoan **parasites of the intestinal tract: a** review **of Coccidia and** Microsporida .

Collins R
University of Ostoepathic Medicine and Health Sciences/College of Osteopathic Medicine and Surgery, Des Moines, Iowa, USA.

Journal of the American Osteopathic Association (UNITED STATES) Oct 1997, 97 (10) p593-8, ISSN 0098-6151 Journal Code: 7503065
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS

Ubiquitous in nature, members of the Coccidia and **Microsporida** are being reported with increasing frequency in the immunocompromised as well as the immunocompetent population. These **protozoans** are primarily waterborne, but foodborne disease has also been reported. These organisms are responsible for acute, as well as protracted, cases of watery diarrhea with various other related sequelae. The Coccidia includes three genera--Cryptospridium, Isospora, and Cyclospora. The latter two are of lesser importance in terms of morbidity and mortality. The **Microsporida** includes genera (Enterocytozoon, Encephalitozoon) only recently recognized as important agents of disease. Unlike the Coccidia, these organisms are more restricted to the immunocompromised population. Increased incidence and numbers of patients with prolonged diarrhea due to these forms indicate

the need for increased clinical vigilance with regard to prevention, diagnosis, and treatment. (86 Refs.)
Tags: Animal; **Human**
Descriptors: Coccidiosis--parasitology--PS; *Eucoccidiida--isolation and purification--IP; *Intestinal Diseases, Parasitic--parasitology--PS; * **Microsporida** --isolation and purification--IP; * **Protozoan** Infections --parasitology--PS; Clinical Trials; Risk Factors
Record Date Created: 19971204
Record Date Completed: 19971204

**5/9/7**
DIALOG(R)File 155:MEDLINE(R)


10789211 97139495 PMID: 9026860
Microsporidiosis **: current state of a new parasitosis]**
**Microsporidiosis** : estado actual de una nueva parasitosis.
Ruiz-Sanchez D; Sanchez-Vega J T; Tay J
Departamento de Microbiologia y Parasitologia, Facultad de Medicina, Universidad Nacional Autonoma de Mexico, D.F., Mexico.
Revista latinoamericana de microbiologia (MEXICO) Apr-Jun 1996, 38 (2) p151-66, ISSN 0187-4640 Journal Code: 0242625
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: SPANISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
**Protozoa** of the order **Microsporida** have become regarded as causes of several pathologies in patients with severe immunodeficiencies. Apparently they are transmitted to the **human** through fecalism, but also the respiratory route has been considered. People most affected are young males infected with the **human** immunodeficiency virus. The most important genera are: Enterocytozoon, Encephalitozoon, Septata, Nosema and Pleistophora. There are discrepancies about the biology of these parasites and little is known of their behavior in the **human** host. It is concluded that with the advent of AIDS, many nosological entities by opportunistic organisms, that were not previously considered as **human** infections are appearing. This work is a **review** of the literature published from 1959 to 1995, related to epidemiological, clinical, diagnostic and therapeutic aspects. (145 Refs.)
Tags: Animal; Female; **Human** ; Male
Descriptors: **Microsporida** ; * **Microsporidiosis** ; AIDS-Related Opportunistic Infections--diagnosis--DI; AIDS-Related Opportunistic Infections--drug therapy--DT; AIDS-Related Opportunistic Infections --parasitology--PS; Antiprotozoal Agents--therapeutic use--TU; Comorbidity; Diarrhea--parasitology--PS; Herpesviridae Infections--epidemiology--EP; Intestinal Diseases, Parasitic--epidemiology--EP; **Microsporida** --physiology--PH; **Microsporida** --ultrastructure--UL; **Microsporidiosis** --diagnosis--DI; **Microsporidiosis** --drug therapy--DT; **Microsporidiosis** --epidemiology--EP; Mycoses--epidemiology--EP
CAS Registry No.: 0 (Antiprotozoal Agents)
Record Date Created: 19970220
Record Date Completed: 19970220

**5/9/8**
DIALOG(R)File 155:MEDLINE(R)


10716986 97066370 PMID: 8909851
**Enterocytozoon bieneusi infection and diarrheal disease in patients who were not infected with** human **immunodeficiency virus: case report and** review .
Wanke C A; DeGirolami P; Federman M
Department of Internal Medicine, New England Deaconess Hospital, Harvard Medical School, Boston, Massachusetts 02215, USA.
Clinical infectious diseases - an official publication of the Infectious

Diseases Society of America (UNITED STATES) Oct 1996, 23 (4) p816-8,
ISSN 1058-4838 Journal Code: 9203213
Comment in Clin Infect Dis. 1997 Aug;25(2) 344; Comment in PMID 9332548
Document type: Journal Article; Review; Review of Reported Cases
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
We describe the identification of the **protozoan** parasite Enterocytozoon bieneusi in the stool of a patient who was not infected with HIV but who presented with persistent diarrheal disease and severe abdominal complaints. The patient was not infected with HIV but had been noted to have a decreased CD4 cell count since at least 1992 and had had a prior episode of cryptococcal meningitis. The organisms were detected in stool smears with a modified trichrome stain and were identified to the species level by transmission electron microscopy of the stool. The patient responded readily and dramatically to treatment with albendazole, with resolution of symptoms and clearance of the organisms from the stool. Eight or possibly nine other cases of E. bieneusi infection associated with diarrheal disease in individuals who were not infected with HIV were identified in the English-language literature. In two individuals with intact immune function, symptoms were self-limited and diarrheal disease resolved within 2 weeks. The cases summarized herein suggest that E. bieneusi may be more commonly associated with sporadic diarrheal disease than was previously suspected and that the immune system may play a role in the control of this organism within the intestine. (13 Refs.)
Tags: Case Report; Female; **Human** ; Male
Descriptors: Diarrhea--parasitology--PS; *HIV Seronegativity; * **Microsporidiosis** --diagnosis--DI; Adult; CD4 Lymphocyte Count; Child; Child, Preschool; Feces--parasitology--PS; Intestines--immunology--IM; Microscopy, Electron
Record Date Created: 19970227
Record Date Completed: 19970227

**5/9/9**
DIALOG(R)File 155:MEDLINE(R)


10562705 96374589 PMID: 8780816
**Atovaquone is effective treatment for the symptoms of gastrointestinal** microsporidiosis **in HIV-1-infected patients.**
Anwar-Bruni D M; Hogan S E; Schwartz D A; Wilcox C M; Bryan R T; Lennox J L
Infectious Disease Program, Grady Health System, Atlanta, Georgia, USA.
AIDS (London, England) (UNITED STATES) Jun 1996, 10 (6) p619-23,
ISSN 0269-9370 Journal Code: 8710219
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
OBJECTIVE: To report the clinical response to atovaquone in HIV-1-infected patients with symptomatic intestinal **microsporidiosis** . DESIGN: A retrospective **review** of a cohort of AIDS patients with symptomatic intestinal **microsporidiosis** who received atovaquone. SETTING: Infectious Disease Program of the Grady Memorial Hospital, Veterans Affairs Medical Center and private physicians' offices in Atlanta, Georgia. PATIENTS AND METHODS: HIV-1-infected patients (n = 371) were offered a complete stool evaluation and monthly follow-up. Among them, 22 were diagnosed with intestinal **microsporidial** infection using stool smears stained with modified trichrome stain. Species confirmation was made by light microscopy or electron microscopy on small intestinal biopsy specimens in some patients. MAIN OUTCOME MEASURE: Differences in symptoms, number of stools, and body weight were compared before and after a minimum of 1 month of atovaquone therapy. RESULTS: Eight patients received atovaquone treatment. The mean onset of clinical improvement after beginning treatment was 13 days (SEM, +/- 2). The mean number of stools per day decreased from 10 +/- 2.5 to 2 +/- 1 (P = 0.02, paired t test). The

mean weight gain was 3 +/- 2 kg. The parasite was continuously present in the repeated stool specimens. However, semiquantitative analysis performed on two patients' stool specimens showed a decreased parasite burden. Four patients underwent small intestinal endoscopy was consistent with Enterocytozoon bieneusi in all four patients. Only one out of these four patients demonstrated a decrease in parasite burden in the biopsy specimen. Ultrastructural analysis performed in another of these four patients following treatment demonstrated the presence of electron-dense granules in spores, suggestive of toxic effects. CONCLUSION: Atovaquone demonstrates promise as a symptomatic treatment for intestinal **microsporidiosis** . A double-blind and placebo-controlled clinical trial is currently in progress.

Tags: Animal; **Human** ; Male

Descriptors: AIDS-Related Opportunistic Infections--drug therapy--DT; *Acquired Immunodeficiency Syndrome--complications--CO; *Antiprotozoal Agents--therapeutic use--TU; *HIV-1; *Intestines--parasitology--PS; * **Microsporida** ; *Naphthoquinones--therapeutic use--TU; * **Protozoan** Infections--drug therapy--DT; Adult; Cohort Studies; Retrospective Studies

CAS Registry No.: 0 (Antiprotozoal Agents); 0 (Naphthoquinones); 94015-53-9 (atovaquone)

Record Date Created: 19961205

Record Date Completed: 19961205

**5/9/10**

DIALOG(R)File 155:MEDLINE(R)



10380460 96185737 PMID: 8602186 Record Identifier: 113534; 00253765

**Antiparasitic drugs.**

Liu L X; Weller P F

Department of Medicine, Harvard Medical School, Boston, MA USA.

New England journal of medicine (UNITED STATES) May 2 1996, 334 (18) p1178-84, ISSN 0028-4793 Journal Code: 0255562

TJ: NEW ENGLAND JOURNAL OF MEDICINE.

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Other Citation Owner: PIP; POP

Abstract Source: PIP

Record type: Completed

Subfile: AIM; INDEX MEDICUS

(100 Refs.)

Many different infections with **protozoan** and helminthic parasites are common global health problems. Several **protozoa** are responsible for opportunistic infections in patients with AIDS. The newly developed drug, albendazole, has a strong activity against many nematode and cestode parasites. In the case of echinococcosis, it reduces the viability of protoscolices and cysts. Its hepatic metabolite, albendazole sulfoxide, is active against the larval cestodes. In the case of neurocysticercosis, administration of either the standard treatment, praziquantel, or the newly developed drug, albendazole, reduces or eliminates tapeworm cysts in 80-90% of patients. Patients with numerous cysts and those in whom neurologic symptoms or intracranial hypertension develops after therapy against cysticerci should receive adjunctive therapy with dexamethasone. Mass chemotherapy with single doses of albendazole or the older drug, mebendazole, is feasible for school-age children to treat the soil-transmitted helminthiases (ascariasis, hook-worm infection, and trichuriasis). The newly developed drug, ivermectin, is more effective against chronic strongyloidiasis than albendazole. It has been used most extensively against river blindness. It greatly reduces the number of microfilariae in the skin and eyes but has no effect on sclerosing keratitis or chorioretinitis. Both drugs are available in the US on a compassionate-use basis from their manufacturers. Field trials show that ivermectin is also effective against lymphatic filariasis and Mansonella ozzardi. Praziquantel is effective against many trematode and cestode infections. It is the drug of choice for schistosomiasis. Albendazole was effective against giardiasis in children in Bangladesh but ineffective in adult travelers returning from tropical areas. It appears to effect

symptomatic improvement of intestinal **microsporidial** infections in patients with AIDS. The newly developed drug, fumagillin, can ameliorate ocular **microsporidiosis** . The newly developed drug, paromycin, treats cryptosporidiosis. Trimethoprim-sulfamethoxazole treats cyclosporiasis and isosporiasis.

Tags: **Human**

Descriptors: Anthelmintics--therapeutic use--TU; *Antiprotozoal Agents --therapeutic use--TU; *Helminthiasis--drug therapy--DT; * **Protozoan** Infections--drug therapy--DT

CAS Registry No.: 0 (Anthelmintics); 0 (Antiprotozoal Agents)

Identifiers: Acquired Immunodeficiency Syndrome; *Diseases; *Drugs; *Economic Factors; *Hiv Infections; *Literature **Review** ; *Parasitic Diseases; *Research And Development; *Technology; *Treatment; *Viral Diseases

Record Date Created: 19960503

Record Date Completed: 19960503

**5/9/11**

DIALOG(R)File 155:MEDLINE(R)



10349442 96151948 PMID: 8554253

**Understanding intestinal spore-forming** protozoa : **cryptosporidia,** microsporidia , **isospora, and cyclospora.**

Goodgame R W

Baylor College of Medicine, Houston, Texas, USA.

Annals of internal medicine (UNITED STATES) Feb 15 1996, 124 (4) p429-41, ISSN 0003-4819 Journal Code: 0372351

Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS

OBJECTIVES: To summarize recent information about the "new" gastrointestinal **protozoal** pathogens (cryptosporidia, **microsporidia** , isospora, and cyclospora) and to help practicing clinicians integrate this information into their clinical databases by emphasizing the similarities among these organisms. DATA SOURCES: Relevant English-language articles published between 1988 and 1995 were identified through a MEDLINE search done using the names of the intestinal spore-forming **protozoa** . Articles cited in the bibliographies of these and other articles were searched manually. STUDY SELECTION: Studies that contained information on the history, taxonomy, life cycle, epidemiology, pathogenesis, clinical manifestations, diagnosis, and treatment of the pathogens were **reviewed** . DATA EXTRACTION: Cryptosporidium parvum, Isospora belli, Cyclospora cayetanensis, Enterocytozoon bieneusi, and Septata intestinalis are intestinal spore-forming **protozoa** that cause intracellular infections, predominantly in the epithelial cells of the intestine. They are transmitted either by stool from person to person or through contaminated water or food by an infectious particle called a spore or oocyst. Asymptomatic infections occur; the most common symptom of infection is diarrhea. Infections have been associated with intestinal inflammation, disordered architecture (such as villus blunting), and abnormal function (for example, malabsorption). Mild to moderate, self-limited diarrhea is common in healthy persons, but patients with immune dysfunction can have severe intestinal injury and prolonged diarrhea. Diagnosis is made by a microscopic examination of the stool and the use of appropriate staining techniques. Effective antibiotic treatment for prolonged infection in immunocompromised patients is available for most of these infections. CONCLUSIONS: The intestinal spore-forming **protozoa** are four frequently identified gastrointestinal pathogens that have important similarities in epidemiology, disease pathogenesis, clinical manifestations, diagnosis, and treatment. (170 Refs.)

Tags: Animal; **Human**

Descriptors: Intestines--microbiology--MI; * **Protozoa** --physiology--PH; Coccidiosis--epidemiology--EP; Cryptosporidiosis--epidemiology--EP; Cryptos poridium--physiology--PH; Eucoccidiida--physiology--PH; Intestinal Diseases, Parasitic--epidemiology--EP; Isospora--physiology--PH; **Microspor**

**ida** --physiology--PH; **Protozoa** --classification--CL; **Protozoa** --pathogenicity--PY; **Protozoan** Infections--epidemiology--EP
Record Date Created: 19960222
Record Date Completed: 19960222

**5/9/12**
DIALOG(R)File 155:MEDLINE(R)


10109876 22074258 PMID: 12078476
**Pathogenic** protozoans **in man: differential characterization of Entamoeba histolytica/Entamoeba dispar complex, Acanthamoeba spp., Microsporidia ]**
**Protozoi** patogeni per l'uomo: protocolli di caratterizzazione differenziale di genere e di specie nell'ambito del complesso Entamoeba histolytica/Entamoeba dispar, Acanthamoeba spp., **Microsporidi** .
Scaglia M; Gatti S; Bruno A; Bernuzzi A M; Cevini C; Maserati R
Dipartimento di Malattie Infettive, Laboratori di Ricerca di Area Infettivologica, Universita-IRCCS Policlinico San Matteo, Viale Taramelli 5, 27100 Pavia. mscaglia@smatteo.pv.it
Parassitologia (Italy) Dec 2001, 43 Suppl 1 p37-43, ISSN 0048-2951 Journal Code: 0413724
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: ITALIAN
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
The **review** summarizes the results in the main parasitological topics of our Lab: amoebic infections due to Entamoeba histolytica/Entamoeba dispar complex and to Acanthamoeba spp. respectively, and **human** infections caused by **microsporidia** . Different rapid and advanced techniques have been included in the standardized diagnostic protocols for each topic, and a critical comparison among them was made, in order to define the gold standard diagnostic method: a) E. histolytica/E. dispar: in vitro culture, zymodeme typization, biomolecular identification (PCR), immunoenzymatic assay (ELISA) for direct detection in stools of specific surface antigenic lectins; b) Acanthamoeba spp.: in vitro culture, light and ultrastructural characterization, species identification by immunofluorescence method with monoclonal antibodies, in vitro pharmacological studies; c) **Microsporidia** : ultrastructural (TEM), biomolecular (PCR), biochemical and immunological (SDS-PAGE, Immunoblotting) studies for species identification, use of advanced ultrastructural techniques ("freeze-etching", "deep-etching") in order to deepen the spore wall structure, to study the cytoskeletal function of actin and to define the mode of infection, in vitro pharmacological assays on some inhibitors of chitin-synthases. (37 Refs.)
Tags: Animal; **Human** ; Support, Non-U.S. Gov't
Descriptors: Acanthamoeba--chemistry--CH; *Amebiasis--diagnosis--DI; *Entamoeba--chemistry--CH; *Entamoeba histolytica--chemistry--CH; *Entamoebiasis--diagnosis--DI; *Microspora--chemistry--CH; * **Microsporidiosis** --diagnosis--DI; Electrophoresis, Polyacrylamide Gel; Enzyme-Linked Immunosorbent Assay; Polymerase Chain Reaction
Record Date Created: 20020624
Record Date Completed: 20020730

**5/9/13**
DIALOG(R)File 155:MEDLINE(R)


09955367 21873613 PMID: 11881297
**[Encephalitozoon cuniculi and Encephalitozoon intestinalis--causes of opportunistic infections]**
Encephalitozoon cuniculi a Encephalitozoon intestinalis--puvodci oportunnich infekci.
Salat J; Braunfuchsova P
Parazitologicky ustav AV CR, Biologicka fakulta, Jihoceska univerzita, Ceske Budejovice. george@paru.cas.cz

Epidemiologie, mikrobiologie, imunologie - casopis Spolecnosti pro epidemiologii a mikrobiologii Ceske lekarske spolecnosti J.E. Purkyne ( Czech Republic) Feb 2002, 51 (1) p26-32, ISSN 1210-7912
Journal Code: 9431736
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: CZECH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS

**Microsporidia** (phylum **Microsporidia** ) are intracellular parasites that infect a wide range of **protozoa** , invertebrates and vertebrate hosts. Over a 1000 species have been classified into approximately 100 genera. Historically, **microsporidial** infections in silkworms, honey bees, and salmonid fish have been responsible for significant economic losses. More recently, **microsporidiosis** has been recognized as an important opportunistic infection in immunologically compromised patients. In this **review** there is information on the immunobiology of **microsporidia** Encephalitozoon cuniculi and Encephalitozoon intestinalis which were identified as the most common causative agents of **microsporidiosis** in mammals. Most of what is known about the immunology of **microsporidiosis** is based on experiments with the **microsporidian** Encephalitozoon cuniculi. (56 Refs.)

Tags: Animal; **Human**
Descriptors: *Encephalitozoon cuniculi; *Encephalitozoonosis; *Opportunistic Infections; Encephalitozoon--physiology--PH; Encephalitozoon cuniculi--physiology--PH; Encephalitozoonosis--diagnosis--DI; Encephalitozoonosis--immunology--IM; Encephalitozoonosis--therapy--TH; Immunocompromised Host; Opportunistic Infections--diagnosis--DI; Opportunistic Infections--immunology--IM; Opportunistic Infections--therapy--TH
Record Date Created: 20020307
Record Date Completed: 20020328

**5/9/14**
DIALOG(R)File 155:MEDLINE(R)


09793931 21601217 PMID: 11737348
**Management of** protozoal **diarrhoea in HIV disease.**
Miao Y M; Gazzard B G
Department of HIV/GUM, Chelsea and Westminster Hospital, London, UK.
HIV medicine (England) Oct 2000, 1 (4) p194-9, ISSN 1464-2662
Journal Code: 100897392
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS

Since the first reported case of HIV infection in 1981, many HIV-seropositive patients have died as a result of diarrhoea induced by opportunistic **protozoal** infections: pathogens that would normally cause only a transient illness in immunocompetent individuals. The introduction of highly active antiretroviral therapy (HAART) in 1996 has been associated with a significant decline in incidence and mortality arising from infections such as cryptosporidia and **microsporidia** . Previously, there were no chemotherapeutic agents known to be effective in eradicating these parasites, but since the availability of HAART, the memory of the emaciated terminally ill patient with advanced AIDS suffering from refractory diarrhoea will hopefully be a thing of the past. Significant advances in the knowledge of the pathogenesis of HIV disease, earlier detection and thus treatment of the virus, and availability of improved diagnostic techniques and HAART have transformed the way HIV-associated diarrhoea is managed. In this **review** , we look specifically at the management of **protozoa** -induced diarrhoea. (51 Refs.)

Tags: Animal; **Human**
Descriptors: AIDS-Related Opportunistic Infections--drug therapy--DT; *AIDS-Related Opportunistic Infections--parasitology--PS; *Antiretroviral Therapy, Highly Active; *HIV Enteropathy--drug therapy--DT; *HIV

Enteropathy--parasitology--PS; * **Protozoa** ; AIDS-Related Opportunistic Infections--physiopathology--PP; HIV Enteropathy--physiopathology--PP; **Protozoa** --isolation and purification--IP; Treatment Outcome
Record Date Created: 20011212
Record Date Completed: 20020212

**5/9/15**
DIALOG(R)File 155:MEDLINE(R)


09793927 21601213 PMID: 11737344
**Disseminated infection due to Encephalitozoon cuniculi in a patient with AIDS: case report and** review .
Fournier S; Liguory O; Sarfati C; David-Ouaknine F; Derouin F; Decazes J M; Molina J M
Department of Infectious Diseases, Saint-Louis Hospital, Paris, France.
HIV medicine (England) Jul 2000, 1 (3) p155-61, ISSN 1464-2662
Journal Code: 100897392
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
OBJECTIVE AND METHODS: Infections due to **microsporidia** are increasingly recognized as opportunistic infections in patients with AIDS. We describe here a case of disseminated infection due to Encephalitozoon cuniculi and **review** the literature on this **microsporidial** infection. RESULTS: All 12 patients reported in the literature had AIDS and nine presented with disseminated infection involving the kidneys, sinuses, lungs, brain and conjunctiva. Asymptomatic infection was seen in three patients. **Microsporidia** were detected by light microscopy examination of urine samples in all the cases. Species identification was performed by various genotypic methods or transmission electron microscopy. Eight of 12 patients who received albendazole therapy experienced clinical improvement with documented clearance of spores in five of these eight patients. Two patients relapsed. CONCLUSIONS: E. cuniculi infection should be considered in severely immunocompromised HIV-infected patients with multi-organ involvement and fever, especially when renal failure is present. **Microsporidial** spores are usually seen in urine samples and in the involved organ. Albendazole therapy seems to be effective. (25 Refs.)
Tags: Animal; Case Report; **Human** ; Male; Support, Non-U.S. Gov't
Descriptors: *AIDS-Related Opportunistic Infections--diagnosis--DI; *Brain Diseases--diagnosis--DI; *Encephalitozoon cuniculi--isolation and purification--IP; *Encephalitozoonosis--diagnosis--DI; *Vision Disorders --etiology--ET; AIDS-Related Opportunistic Infections--complications--CO; AIDS-Related Opportunistic Infections--drug therapy--DT; Albendazole --therapeutic use--TU; Antiprotozoal Agents--therapeutic use--TU; Brain Diseases--complications--CO; Brain Diseases--drug therapy--DT; Brain Diseases--radiography--RA; DNA, **Protozoan** --genetics--GE; Encephalitozoon cuniculi--ultrastructure--UL; Encephalitozoonosis--complications--CO; Ence phalitozoonosis--drug therapy--DT; Encephalitozoonosis--radiography--RA; Fatal Outcome; Immunocompromised Host; Middle Age; Polymerase Chain Reaction; Tomography, X-Ray Computed
CAS Registry No.: 0 (Antiprotozoal Agents); 0 (DNA, Protozoan); 54965-21-8 (Albendazole)
Record Date Created: 20011212
Record Date Completed: 20020103

**5/9/16**
DIALOG(R)File 155:MEDLINE(R)


09530602 21310655 PMID: 11416983
Human microsporidiosis ]
**Microsporidiosis humana** .
Arcay L
Instituto de Zoologia Tropical, Facultad de Ciencias, Universidad Central

de Venezuela, Caracas, Venezuela.
Investigacion clinica (Venezuela) May 2001, 42 Suppl 1 p3-42, ISSN 0535-5133 Journal Code: 0421531
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: SPANISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
This **review** shows the **Microsporidia** as unicellular **protozoa** strictly intracellular eukaryotic parasites of animals and **humans** . These study concerns life cycles, cytology, host-parasite relationships in animal models experimentally infected with **microsporidia** from **human** feces, demonstrating the host-inespecificity and visceral dissemination with histopathological studies in digestive, tract, kidney, liver, spleen, brain, heart, pancreas, thyroid, suprarenal glands. It is presented the **microsporidiosis** in Venezuela in immunocompetent patients and immunodeficients HIV+, with diarrheic syndromes with keratoconjuntivitis **microsporidial** punctata diffuse and with disseminated **microsporidia** in urine, tracheobronchial sputum, nasal and pharyngeal exudates. Also we have found the **microsporidia** in river and lake waters and in animals relationed with the man: dogs, cats, pigs, monkeys, donkeys, guts. The patients are treated specially with Albendazole and also with Trimethoprim-Sulphametoxazol for the children until two years of age. We use as laboratory diagnosis the technique of Kinyoun stain, in support of the acid resistance property of these parasites, and also the Chromotrope staining. Our recommendations for a proper identification of the Microspora species, should be done with Electron Microscopy and the TCR reaction. ( 176 Refs.)
Tags: Animal; **Human**
Descriptors: **Microsporidiosis** ; Acquired Immunodeficiency Syndrome --complications--CO; Host-Parasite Relations; Immunity; Life Cycle Stages; Microspora--cytology--CY; Microspora--physiology--PH; **Microsporidiosis** --complications--CO; **Microsporidiosis** --diagnosis--DI; **Microsporidiosis** --drug therapy--DT; **Microsporidiosis** --epidemiology--EP; **Microsporidiosis** --immunology--IM
Record Date Created: 20010621
Record Date Completed: 20011101

**5/9/17**
DIALOG(R)File 155:MEDLINE(R)


09486043 21262400 PMID: 11369274
**Cell biology and invasion of the** microsporidia .
Bigliardi E; Sacchi L
Department of Evolutionary Biology, University of Siena, Via Mattioli 4, 53100, Siena, Italy. bigliardi@unisi.it
Microbes and infection / Institut Pasteur (France) Apr 2001, 3 (5) p373-9, ISSN 1286-4579 Journal Code: 100883508
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
**Microsporidia** are amitochondrial eukaryotic obligate intracellular parasites. They are reported to infect every animal group from protists to vertebrates, including **humans** . **Microsporidia** are of interest as opportunistic pathogens in **humans** and for certain characteristics which raise questions about their evolution and phylogenetic position. This **review** describes the basic biology and invasion mechanisms of **microsporidian** species infecting **humans** . (38 Refs.)
Tags: Animal
Descriptors: *Microspora--cytology--CY; *Microspora--pathogenicity--PY; *Microspora--physiology--PH; *Opportunistic Infections--parasitology--PS; Eukaryotic Cells; Evolution, Molecular; Genes, **Protozoan** ; Life Cycle Stages; Microspora--growth and development--GD; **Microsporidiosis** --parasitology--PS; Phylogeny

Record Date Created: 20010522
Record Date Completed: 20010628

**5/9/18**
DIALOG(R)File 155:MEDLINE(R)


08968092 20258375 PMID: 10798040
**Prevalence of intestinal pathogens in HIV patients with diarrhea: implications for treatment.**
Ramakrishna B S
Department of Gastrointestinal Sciences, Christian Medical College Hospital, Vellore.
Indian journal of pediatrics (INDIA) Jan-Feb 1999, 66 (1) p85-91, ISSN 0019-5456 Journal Code: 0417442
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Patients infected with the **human** immunodeficiency virus (HIV) commonly experience diarrhea at some time during their illness. A variety of enteric pathogens are identified in 50-80% of these patients, depending on the intensity of the diagnostic work-up that is done. In addition to the common enteric pathogens, several unusual enteric pathogens are recognized to cause diarrhea especially in HIV patients. These include **protozoan** parasites such as Cryptosporidia, Isospora belli, Cyclospora cayatenensis and **Microsporidium** species bacteria such as enteropathogenic Escherichia coli and Mycobacterium avium-intracellulare, fungi including Candida albicans and Histoplasma capsulatum, and viruses such as astroviruses and caliciviruses. Diagnosis of these infections sometimes involves special procedures not readily available every where, and empiric therapy based on knowledge of the likely pathogens has been advocated for developing countries. This article **reviews** the currently available data on geographic variation of enteric pathogens in HIV patients with diarrhea and outlines a rational strategy for empiric therapy of these patients. (15 Refs.)
Tags: Animal; **Human**
Descriptors: *HIV Enteropathy--microbiology--MI; HIV Enteropathy--drug therapy--DT; HIV Enteropathy--parasitology--PS; **Protozoa** --isolation and purification--IP
Record Date Created: 20000719
Record Date Completed: 20000719

**5/9/19**
DIALOG(R)File 155:MEDLINE(R)


08890616 20177122 PMID: 10714640
**Mammalian** microsporidiosis .
Wasson K; Peper R L
Office of Laboratory Animal Resources, University of Illinois, Urbana 61801, USA.
Veterinary pathology (UNITED STATES) Mar 2000, 37 (2) p113-28, ISSN 0300-9858 Journal Code: 0312020
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
The phylum Microspora contains a diverse group of single-celled, obligate intracellular **protozoa** sharing a unique organelle, the polar filament, and parasitizing a wide variety of invertebrate and vertebrate animals, including insects, fish, birds, and mammals. Encephalitozoon cuniculi is the classic **microsporidial** parasite of mammals, and encephalitozoonosis in rabbits and rodents has been and continues to be recognized as a confounding variable in animal-based biomedical research. Although

contemporary research colonies are screened for infection with this parasite, E. cuniculi remains a cause of morbidity and mortality in pet and conventionally raised rabbits. In addition, E. cuniculi is a potential pathogen of immature domestic dogs and farm-raised foxes. The recent discovery and identification of Encephalitozoon intestinalis, Encephalitozoon hellem, and Enterocytozoon bieneusi, in addition to E. cuniculi, as opportunistic pathogens of **humans** have renewed interest in the Microspora. Veterinary pathologists, trained in the comparative anatomy of multiple animal species and infectious disease processes, are in a unique position to contribute to the diagnosis and knowledge of the pathogenesis of these parasitic diseases. This **review** article covers the life cycle, ultrastructure, and biology of mammalian microsporaidia and the clinical disease and lesions seen in laboratory and domestic animals, particularly as they relate to Encephalitozoon species. **Human microsporidial** disease and animal models of **human** infection are also addressed. Often thought of as rabbit pathogens of historical importance, E. cuniculi and the related mammalian **microsporidia** are emerging as significant opportunistic pathogens of immunocompromised individuals. (154 Refs.)

Tags: Animal; **Human**

Descriptors: *AIDS-Related Opportunistic Infections--parasitology--PS; *Disease Models, Animal; *Encephalitozoon cuniculi--physiology--PH; *Encephalitozoonosis--physiopathology--PP; Cerebellum--parasitology--PS; Dogs; Encephalitozoon cuniculi--ultrastructure--UL; Foxes; Guinea Pigs; Haplorhini; Intestines--parasitology--PS; Mice; Microscopy, Electron --veterinary--VE; Rabbits

Record Date Created: 20000405

Record Date Completed: 20000405

**5/9/20**

DIALOG(R)File 155:MEDLINE(R)



08631795 95320322 PMID: 7597182

Microsporidiosis : **a new** protozoan **disease in persons infected with** human **immunodeficiency virus (HIV)]**

**Microsporidiosis** --nowa choroba pierwotniakowa u osob zakazonych ludzkim wirusem uposledzenia odpornosci (HIV).

Rogowska-Szadkowska D; Kramarz P

Zaklad Medycyny Rodzinnej Akademii Medycznej w Bialymstoku.

Przeglad epidemiologiczny (POLAND) 1994, 48 (4) p449-53, ISSN 0033-2100 Journal Code: 0413725

Document type: Journal Article; Review; Review, Tutorial ; English Abstract

Languages: POLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

The list of infections, threatening patients with impaired immunological system, especially infected with HIV, prolongs systematically. Since early eighties many authors pay attention to little known type of **protozoan** : Microspora. More and more often new **microsporidia** species are described as a cause of disease, especially in patients with AIDS. We present **review** of literature data concerning species known up to now as pathogenic for man: Encephalitozoon cuniculi, Encephalitozoon hellem, Nosema connori and Nosema corneum, Pleistophora sp., as well as enteropathogenic for AIDS-patients-Enterocytozoon bieneusi and Septata intestinalis. (29 Refs.)

Tags: Animal; **Human**

Descriptors: HIV Seropositivity--complications--CO; *HIV Seropositivity --microbiology--MI; * **Microsporida** --isolation and purification--IP; * **Microsporidiosis** --immunology--IM

Record Date Created: 19950801

Record Date Completed: 19950801

**5/9/21**

DIALOG(R)File 155:MEDLINE(R)

08494456 95182672 PMID: 7877372
**Intestinal** microsporidiosis **in patients with AIDS: study of 3 cases]**
**Microsporidiosis** intestinal en enfermos con sida: estudio de tres casos.
Miro O; Moreno A; Valls M E; Miro J M; Pique J M; Bordas J M; Moreno-Martinez A; Bombi J A; Gatell J M
Servicio de Enfermedades Infecciosas, Hospital Clinic i Provincial, Facultad de Medicina, Universidad de Barcelona.
Medicina clinica (SPAIN) Jan 28 1995, 104 (3) p96-9, ISSN 0025-7753 Journal Code: 0376377
Document type: Journal Article; Review; Review of Reported Cases ; English Abstract
Languages: SPANISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Enterocytozoon bieneusi is a **protozoa** belonging to the **Microsporidia** family which prevalence has increased in AIDS patients. Although diagnosis is performed by the demonstration of the parasite in the epithelium of the small intestine by light and electron microscopy, techniques allowing diagnosis from stools or duodenal or biliary aspirates have recently been described. Three cases of intestinal **microsporidiosis** diagnosed by the mentioned method are reported. The patients were 3 males with chronic diarrhea of several months of evolution with an important ponderal loss. All were in advanced stages of HIV infection with CD4-lymphocyte counts lower than 0.1 x 10(9)/l. In all the patients in whom intestinal absorption tests were performed these were found to be altered. One of the patients presented concommitant cholestasis with parasitation by E. bieneusi being demonstrated as by the biliary route in this patient. Confirmation of infection by E. bieneusi was performed in the 3 cases by electron microscopy study of stools. A **review** of intestinal **microsporidiosis** in AIDS patients is carried out and the therapeutic possibilities available for this infection are discussed. (23 Refs.)
Tags: Case Report; **Human** ; Male; Support, Non-U.S. Gov't
Descriptors: Acquired Immunodeficiency Syndrome--complications--CO; * **Microsporidiosis** --complications--CO; Adult; **Microsporidiosis** --parasitology--PS; Middle Age
Record Date Created: 19950331
Record Date Completed: 19950331

**5/9/22**
DIALOG(R)File 155:MEDLINE(R)


08360285 95048256 PMID: 7959657
**Gastrointestinal disease in the immunocompromised patient.**
Rotterdam H; Tsang P
College of Physicians and Surgeons of Columbia University, New York, NY.
Human pathology (UNITED STATES) Nov 1994, 25 (11) p1123-40, ISSN 0046-8177 Journal Code: 9421547
Document type: Journal Article; Review; Review, Academic
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Gastrointestinal (GI) disease is frequent in all types of immunocompromised patients but occurs with greatest frequency in patients with acquired immunodeficiency syndrome (AIDS). Thus, much of this **review** deals with **human** immunodeficiency virus (HIV)-related GI diseases. Gastrointestinal diseases in other immunocompromised patients are compared with those in patients with AIDS. Conditions unique to transplant recipients, such as graft-versus-host disease (GVHD) and posttransplant lymphoproliferative disorders (PTLDs), are discussed separately. We have divided these GI diseases into four main categories: (1) HIV-related inflammatory conditions other than opportunistic infections (HIV-related enteropathy, proctocolitis, and CD8 lymphocytosis); (2) inflammatory conditions unrelated to HIV or opportunistic infections (neutropenic

enterocolitis, regional enteritislike enteropathy, and GVHD); (3) opportunistic infections (illnesses caused by herpesvirus, cytomegalovirus, and miscellaneous other viruses; Mycobacterium, Candida, Histoplasma, Cryptococcus, Cryptosporidium, **Microsporida** , Isospora, Leishmania, Toxoplasma and Strongyloides organisms as well as Pneumocystitis carinii; and (4) neoplasias (Kaposi's sarcoma [KS], AIDS-related non-Hodgkin's lymphoma [NHL], HIV-related Hodgkin's disease [HD], PTLDs, and miscellaneous neoplasms). The prevalence, pathogenesis, clinical manifestations, gross pathological findings, and microscopic features of each disease entity are discussed. (214 Refs.)

Tags: **Human**

Descriptors: *Gastrointestinal Diseases--etiology--ET; *Immunocompromised Host; AIDS-Related Opportunistic Infections--immunology--IM; Acquired Immunodeficiency Syndrome--complications--CO; Gastrointestinal Diseases --pathology--PA; Gastrointestinal Neoplasms--immunology--IM; Gastrointesti nal Neoplasms--pathology--PA; Inflammation--immunology--IM; Lymphoma, AIDS-Related--immunology--IM; Lymphoma, AIDS-Related--pathology--PA; Mycoses--immunology--IM; Mycoses--pathology--PA; Opportunistic Infections --immunology--IM; Opportunistic Infections--pathology--PA; **Protozoan** Infections--immunology--IM; **Protozoan** Infections--pathology--PA

Record Date Created: 19941213

Record Date Completed: 19941213

**5/9/23**

DIALOG(R)File 155:MEDLINE(R)



08323924 95011894 PMID: 7927064

**Utility of** microsporidian **rRNA in diagnosis and phylogeny: a** review .

Weiss L M; Zhu X; Cali A; Tanowitz H B; Wittner M

Department of Medicine, Albert Einstein College of Medicine, Bronx, New York 10461.

Folia parasitologica (CZECH REPUBLIC) 1994, 41 (2) p81-90, ISSN 0015-5683 Journal Code: 0065750

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

This paper summarizes work done in this laboratory over the last two years on the cloning of **microsporidian** rRNA by homology PCR and its subsequent use in diagnostic tests and phylogenetic studies. Using highly conserved primers in the 16S or small subunit rRNA (SSU-rRNA) these genes were cloned from **human** intestinal biopsies with transmission electron microscopy proven Enterocytozoon bieneusi and Septata intestinalis. The SSU-rRNA genes were then used to design and test several primer pairs for the diagnosis of **microsporidian** infection. Utilizing the polymerase chain reaction and primers V1 and EB450 Ent. bieneusi infected duodenal aspirates or intestinal biopsies could be detected. Using V1 and SI500 infection with S. intestinalis could be detected. In addition to diagnostic tests, phylogenetic relationships were examined using sequence data from the fragment amplified by PCR by primer 530f in the SSU-rRNA and primer 580r in the large subunit rRNA. This data supported the placement of S. intestinalis in the family Encephalitozoonidae. In addition, it confirmed that Encephalitozoon cuniculi, E. hellem and S. intestinalis are distinct organisms. These techniques have broad applications to the study of other **microsporidia** and the development of a molecular phylogeny. (31 Refs.)

Tags: Animal

Descriptors: **Microsporida** --genetics--GE; * **Microsporidiosis** --diagnosis --DI; *RNA, **Protozoan** --genetics--GE; Base Sequence; Cloning, Molecular; DNA Primers--genetics--GE; Genes, **Protozoan** ; **Microsporida** --classification--CL; Molecular Sequence Data; Phylogeny; RNA, Ribosomal, 16S--genetics--GE; RNA, Small Nuclear--genetics--GE; Sequence Homology, Nucleic Acid

Molecular Sequence Databank No.: GENBANK/L07123

CAS Registry No.: 0 (DNA Primers); 0 (RNA, Protozoan); 0 (RNA, Ribosomal, 16S); 0 (RNA, Small Nuclear)

Record Date Created: 19941109

Record Date Completed: 19941109

**5/9/24**
DIALOG(R)File 155:MEDLINE(R)


08323919 95011889 PMID: 7927059
Microsporidiosis **in HIV positive patients: current methods for diagnosis using biopsy, cytologic, ultrastructural, immunological, and tissue culture techniques.**
Schwartz D A; Bryan R T; Weber R; Visvesvara G S
Department of Pathology, Emory University School of Medicine, Atlanta, GA.
Folia parasitologica (CZECH REPUBLIC) 1994, 41 (2) p101-9, ISSN 0015-5683 Journal Code: 0065750
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
**Microsporidiosis** is an increasingly important opportunistic infection in HIV-positive patients. Five species of **microsporidia** (Enterocytozoon bieneusi, Encephalitozoon hellem and E. cuniculi, Septata intestinalis, and Pleistophora sp.) have been reported to occur in AIDS, with each agent producing a different clinicopathologic spectrum of disease. This communication **reviews** routine and specialized methods for diagnosis of these important pathogenic **protozoa** , including biopsy, cytology, ultrastructural and immunologic examination, and tissue culture, and describes the current knowledge of organ distribution for **microsporidia** in persons with AIDS. (60 Refs.)
Tags: Animal; **Human**
Descriptors: AIDS-Related Opportunistic Infections--diagnosis--DI; * **Microsporida** ; * **Microsporidiosis** --complications--CO; * **Microsporidiosis** --diagnosis--DI; AIDS-Related Opportunistic Infections--immunology--IM; AIDS-Related Opportunistic Infections--parasitology--PS; Biopsy; Cytological Techniques; Microscopy, Electron; **Microsporida** --immunology --IM; **Microsporidiosis** --immunology--IM; Serologic Tests; Tissue Culture
Record Date Created: 19941109
Record Date Completed: 19941109

**5/9/25**
DIALOG(R)File 155:MEDLINE(R)


08266488 94332549 PMID: 8055239
**New parasites on the block: emerging intestinal** protozoa .
Topazian M; Bia F J
Department of Medicine, Yale School of Medicine, New Haven, CT 06520-8019.
Gastroenterologist (UNITED STATES) Jun 1994, 2 (2) p147-59, ISSN 1065-2477 Journal Code: 9308839
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Several trends in clinical medicine have converged recently and placed intestinal **protozoan** infections in a position of increasing importance to health professionals. These trends include the pandemic of **human** immunodeficiency virus (HIV) infections that cause the acquired immunodeficiency syndrome (AIDS) and result in associated opportunistic infections. The increasing use of powerful chemotherapeutic and immunosuppressive agents to prevent rejection of transplanted tissues in **human** allograft recipients has predisposed these patients to intestinal parasitic infections, which often become chronic and debilitating. Large numbers of people engage in business, philanthropic work, and vacation travel on a worldwide basis. The number of susceptible, potential **human**

hosts for parasitic infections will continue to increase in the coming years. We **reviewed** 4 **protozoan** infections that have recently attracted the interest of clinicians, either because they are newly discovered or because they are increasingly prevalent. These infections include cryptosporidiosis and recently described infections due to Cyclospora species. The AIDS pandemic has also been associated with both the discovery and the rapid emergence of **human microsporidiosis** . Isospora belli has received renewed attention because of chronic infections now observed in HIV-infected hosts. (36 Refs.)
Tags: Female; **Human** ; Male
Descriptors: AIDS-Related Opportunistic Infections--parasitology--PS; *Intestinal Diseases, Parasitic; * **Protozoan** Infections
Record Date Created: 19940912
Record Date Completed: 19940912

**5/9/26**
DIALOG(R)File 155:MEDLINE(R)


08245302 94311259 PMID: 8037163
**Current topics in** protozoal **diseases.**
Sun T
Department of Laboratories, North Shore University Hospital-Cornell University Medical College, Manhasset, New York 11030.
American journal of clinical pathology (UNITED STATES) Jul 1994, 102 (1) p16-29, ISSN 0002-9173 Journal Code: 0370470
Comment in Am J Clin Pathol. 1995 Apr;103(4) 535; Comment in PMID 7726153 ; Erratum in Am J Clin Pathol 1994 Nov;102(5):708
Document type: Journal Article; Review; Review, Academic
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: AIM; INDEX MEDICUS; AIDS/HIV
The author **reviews** seven **protozoal** diseases, emphasizing the current development but also briefly **reviewing** the basic knowledge in epidemiology, parasitology, clinical features, pathology, and laboratory diagnosis. Cryptosporidiosis, **microsporidiosis** , and cyclosporiasis, which are newly discovered diseases in **humans** , and pneumocystosis, toxoplasmosis, and isosporiasis, which are important opportunistic infections in patients with acquired immunodeficiency syndrome, are discussed. The author also presents acanthamoeba keratitis, a disease seen mainly in contact lens wearers that is expected to have a higher prevalence in the near future. (123 Refs.)
Tags: **Human**
Descriptors: **Protozoan** Infections; **Protozoan** Infections--diagnosis --DI; **Protozoan** Infections--epidemiology--EP; **Protozoan** Infections --parasitology--PS; **Protozoan** Infections--pathology--PA; **Protozoan** Infections--physiopathology--PP
Record Date Created: 19940812
Record Date Completed: 19940812

**5/9/27**
DIALOG(R)File 155:MEDLINE(R)


08010067 94075786 PMID: 8254160
**Parasitic infections in AIDS patients. Cryptosporidiosis, isosporiasis,** microsporidiosis , **cyclosporiasis.**
Wittner M; Tanowitz H B; Weiss L M
Department of Parasitology, Albert Einstein College of Medicine, Bronx, New York.
Infectious disease clinics of North America (UNITED STATES) Sep 1993, 7 (3) p569-86, ISSN 0891-5520 Journal Code: 8804508
Contract/Grant No.: AI31788; AI; NIAID
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM

Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
AIDS is characteristically associated with several intracellular enteric **protozoan** infections that often cause chronic and sometimes fatal intractable large-volume diarrhea. Until the AIDS epidemic, several of these parasitic infections were almost unknown as causes of **human** disease. This article **reviews** the diseases produced by cryptosporidia, isospora, cyclospora, and **microsporidia** in **humans** . (126 Refs.)
Tags: Animal; Case Report; **Human** ; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S
Descriptors: AIDS-Related Opportunistic Infections; *Coccidiosis; *Cryptosporidiosis; *Eucoccidiida; *Isospora; * **Microsporidiosis** ; Adult; Coccidiosis--drug therapy--DT; Coccidiosis--pathology--PA; Corneal Diseases--diagnosis--DI; Corneal Diseases--parasitology--PS; Cryptosporidiosis--diagnosis--DI; Cryptosporidiosis--drug therapy--DT; Cryptosporidiosis--parasitology--PS; Diarrhea--parasitology--PS; Eye Infections, Parasitic--diagnosis--DI; Eye Infections, Parasitic--parasitology--PS; **Microsporida** --isolation and purification--IP; **Microsporidiosis** --diagnosis--DI; **Microsporidiosis** --drug therapy--DT; **Microsporidiosis** --parasitology--PS
Record Date Created: 19940107
Record Date Completed: 19940107

**5/9/28**
DIALOG(R)File 155:MEDLINE(R)


07870551 93326236 PMID: 8333895
**Carriers and excretors of** protozoa ]
Trager und Ausscheider von **Protozoen** .
Eckert J
Institut fur Parasitologie, Universitat Zurich.
Zentralblatt fur Hygiene und Umweltmedizin = International journal of hygiene and environmental medicine (GERMANY) Feb 1993, 194 (1-2) p173-85, ISSN 0934-8859 Journal Code: 8912563
Document type: Journal Article; Review; Review, Tutorial ; English Abstract
Languages: GERMAN
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Causative agents of intestinal infections in **humans** are about 10 pathogenic or facultative pathogenic species of **protozoa** of which Giardia lamblia, Entamoeba histolytica, Cryptosporidium parvum and Enterozytozoon bieneusi are discussed. G. lamblia from **humans** is morphologically indistinguishable from Giardia isolates originating from several species of domestic and wild mammals. Swiss Giardia isolates of **human** , sheep, cattle and dog origin could be transmitted to Giardia-free rodents and were rather homogenous in biochemical parameters. These data support the hypothesis that zoonotic transmission of Giardia may occur. Routine faecal examinations in Zurich in 1991 revealed 3.61% of Giardia excretors among 5017 examined patients. Of the same group of persons 3.95% excreted E. histolytica. At present it is anticipated that the species E. histolytica consists of invasive and non-invasive strains which can be differentiated by isoenzyme electrophoresis. The confirmation of this assumption could deeply influence the opinion about medical and epidemiological significance of Entamoeba infections. Cryptosporidium parvum is an important cause of diarrhea in HIV-infected patients. Person-to-person, zonnotic and waterborne transmission may play a role. A short **review** of new data on Enterozytozoon bieneusi and other **microsporidia** is presented. E. bieneusi appears to be an important causative agent of diarrhea in HIV-infected persons. (22 Refs.)
Tags: Animal; **Human**
Descriptors: Carrier State--parasitology--PS; *Giardiasis--transmission--TM; * **Protozoan** Infections--transmission--TM; Feces--parasitology--PS; Giardiasis--epidemiology--EP; Giardiasis--parasitology--PS; **Protozoa** --growth and development--GD; **Protozoa** --isolation and purification--IP; **Protozoa** --pathogenicity--PY; **Protozoan** Infections--epidemiology--EP;

**Protozoan** Infections--parasitology--PS
Record Date Created: 19930826
Record Date Completed: 19930826

**5/9/29**
DIALOG(R)File 155:MEDLINE(R)


07770923 93226416 PMID: 1844514
Microsporida **infections in immunocompetent and immunosuppressed subjects]**
Infezioni da **microsporidi** in soggetti immunocompetenti ed immunodepressi.
Croppo G P; Gomez Morales M A; Pozio E
Laboratorio di Parassitologia, Istituto Superiore di Sanita, Roma, Italia.
Parassitologia (ITALY) Dec 1991, 33 (2-3) p209-18, ISSN 0048-2951 Journal Code: 0413724
Document type: Journal Article; Review; Review, Multicase ; English Abstract
Languages: ITALIAN
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Parasites of the phylum Microspora are obligatory intracellular **protoza** with a widespread host range among invertebrates and vertebrates. Species from Nosema, Encephalitozoon, Enterocytozoon and Pleistophora genera can infect immunocompetent and immunosuppressed patients. The emergency of the AIDS epidemic has recently highlighted the role of these parasites in **human** pathology, **microsporidian** species being a frequent cause of diarrhoea and ocular infections. Recent acquisitions in the taxonomy and life cycle of this parasite group, as well as pathogenesis, immunopathology, clinical aspects, diagnosis, therapy and epidemiology of **human microsporidiosis** are **reviewed** and discussed. (70 Refs.)
Tags: Animal; **Human**
Descriptors: AIDS-Related Opportunistic Infections--parasitology--PS; *Immunocompromised Host; * **Microsporida** --isolation and purification--IP; * **Microsporidiosis** --epidemiology--EP; Disease Susceptibility--immunology --IM; Immunocompetence; **Microsporida** --classification--CL; **Microsporida** --growth and development--GD; **Microsporidiosis** --diagnosis--DI; **Microsporidiosis** --drug therapy--DT; **Microsporidiosis** --immunology--IM
Record Date Created: 19930513
Record Date Completed: 19930513

**5/9/30**
DIALOG(R)File 155:MEDLINE(R)


07555557 93010480 PMID: 1396192 Record Identifier: 080100; 00218702
Protozoan **infections and HIV-1 infection: a** review .
Estambale B B; Knight R
Department of Microbiology, College of Health Sciences, University of Nairobi, Kenya.
East African medical journal (KENYA) Jul 1992, 69 (7) p373-7, ISSN 0012-835X Journal Code: 0372766
TJ: EAST AFRICAN MEDICAL JOURNAL.
Document type: Journal Article; Review; Review Literature
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: PIP; POP
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Reactivation of latent infection is the principal mechanism relating Toxoplasma gondii and Pneumocystis carinii to HIV. Less common is reactivation in Leishmania donovani, Trypanosoma cruzi, and **microsporidian** infections. An impaired primary immune response occurs in all these infections, and also with Cryptosporidium and Isospora belli. Association

of HIV infection with gut parasites including Giardia lamblia and Entamoeba histolytica, and also with Trichomonas vaginalis infection is likely to be related to sexual modes of contact that favour both HIV and the parasite. The severity of malaria is not definitely associated with HIV, but Plasmodium falciparum infection may favour more rapid evolution of the HIV infection. Both malaria and trichomoniasis favour HIV transmission; the former by necessitating blood transfusion, and the latter by enhancing viral transmission during sexual contact. (20 Refs.)

Tags: **Human**

Descriptors: AIDS-Related Opportunistic Infections--epidemiology--EP; * **Protozoan** Infections--epidemiology--EP; AIDS-Related Opportunistic Infections--immunology--IM; AIDS-Related Opportunistic Infections --transmission--TM; Incidence; Prevalence; **Protozoan** Infections --immunology--IM; **Protozoan** Infections--transmission--TM; Risk Factors

Identifiers: *Acquired Immunodeficiency Syndrome; *Diseases; *Hiv Infections; *Infections; *Malaria; *Parasitic Diseases; *Viral Diseases

Record Date Created: 19921119

Record Date Completed: 19921119

**5/9/31**

DIALOG(R)File 155:MEDLINE(R)



06938205 91178617 PMID: 2007952

**Therapy for acute infectious diarrhea in children.**

Pickering L K

Department of Pediatrics, University of Texas Medical School, Houston 77030.

Journal of pediatrics (UNITED STATES) Apr 1991, 118 (4 ( Pt 2)) pS118-28, ISSN 0022-3476 Journal Code: 0375410

Contract/Grant No.: AI-27551; AI; NIAID; HD-13021; HD; NICHD; HR-96040; HR; NHLBI

Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS; AIDS/HIV

This article **reviews** current recommendations of therapy with antidiarrheal compounds and antimicrobial agents for acute infectious diarrhea in children. In most infants and children with acute infectious diarrhea, treatment with antidiarrheal compounds is not indicated. Many of these compounds interfere with identification of enteropathogens in stool specimens, and the antimotility class has an overdose potential. Antimicrobial therapy is given to reduce symptoms and to prevent the spread of infection by decreasing fecal shedding of organisms. Although effective therapy is not available for patients with enteric viruses, Cryptosporidium, and **Microsporidium** , therapy is useful for children with amebiasis, antimicrobial-associated colitis, cholera, giardiasis, various forms of Escherichia coli diarrhea and Salmonella disease, isosporiasis, shigellosis, and strongyloidiasis. For several other conditions, antimicrobial therapy is of questionable benefit (infection with Campylobacter jejuni or Yersinia enterocolitica, intestinal salmonellosis and enterohemorrhagic E. coli infection). Compounds such as the fluoroquinolones, which are effective in the treatment of acute infectious diarrhea in adults, are not approved for use in children because of potential side effects. Many bacterial, viral, and parasitic organisms cause acute infectious diarrhea; appropriate antimicrobial therapy requires the accurate, rapid identification of the offending enteropathogen. In children with an underlying illness such as acquired immunodeficiency syndrome, manifestations may be prolonged, severe, and recurrent despite appropriate therapy. (101 Refs.)

Tags: **Human** ; Support, U.S. Gov't, P.H.S

Descriptors: Bacterial Infections--complications--CO; *Diarrhea--therapy --TH; * **Protozoan** Infections--complications--CO; Acute Disease; Bacterial Infections--therapy--TH; Child; Diarrhea--etiology--ET; **Protozoan** Infections--therapy--TH

Record Date Created: 19910502

Record Date Completed: 19910502

**5/9/32**
DIALOG(R)File 155:MEDLINE(R)


06331671 89347952 PMID: 2669318
**New aspects of parasitic zoonoses.**
Eckert J
Institute of Parasitology, University of Zurich, Switzerland.
Veterinary parasitology (NETHERLANDS) Jul 1 1989, 32 (1) p37-55, ISSN 0304-4017 Journal Code: 7602745
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS; AIDS/HIV
Selected parasitic zoonoses are discussed with emphasis on epidemiological, diagnostic and some chemotherapeutic aspects. Pneumocystosis, toxoplasmosis, cryptosporidiosis and **microsporidiosis** are briefly **reviewed** as "AIDS-related zoonoses". Up to now 5 genera of **Microsporidia** have been identified as causative agents of **human** infections, including Encephalitozoon cuniculi, Enterocytozoon bieneusi and Pleistophora sp. which were found in AIDS patients. From the many "other parasitic zoonoses", giardiasis, echinococcosis and taeniosis/cysticercosis are discussed as examples. Significant advances in the understanding of transmission dynamics, in strain characterisation and diagnosis of the diseases have been achieved. (81 Refs.)
Tags: Animal; **Human**
Descriptors: *Parasitic Diseases--epidemiology--EP; *Zoonoses --parasitology--PS; Acquired Immunodeficiency Syndrome--complications--CO; Cryptosporidiosis--epidemiology--EP; Echinococcosis--epidemiology--EP; Giar diasis--epidemiology--EP; Parasitic Diseases--complications--CO; Parasitic Diseases--diagnosis--DI; Parasitic Diseases--drug therapy--DT; Pneumonia, Pneumocystis carinii--epidemiology--EP; **Protozoan** Infections --epidemiology--EP; Taeniasis--epidemiology--EP; Toxoplasmosis--epidemiolog y--EP
Record Date Created: 19890914
Record Date Completed: 19890914

**5/9/33**
DIALOG(R)File 155:MEDLINE(R)


03020782 79198045 PMID: 109708
**The biology of Encephalitozoon cuniculi.**
Wilson J M
Medical biology (FINLAND) Apr 1979, 57 (2) p84-101, ISSN 0302-2137 Journal Code: 0417300
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
Encephalitozoon cuniculi is a widespread and often sub-clinical **microsporidian** parasite of homeothermic animals, including man. The biology, pathology and taxonomy of the organism is **reviewed** and the available diagnostic methods discussed. Transmission is almost invariably via the oral route either by ingestion of contaminated tissues and other foods or by ingestion of infected urine, perhaps on food, or when animals lick the coats of others. Transplacental transmission does not seem common but can probably occur when susceptible animals are infected during pregnancy. It has been demonstrated once in mice and once in rabbits. The possibility of arthropod vector transmission awaits thorough investigation but this is unlikely to be as important as the oral route. No drugs have yet been found to be effective against E. cuniculi but control of the spread of encephalitozoonosis in laboratory animals, at least, can probably be achieved by maintaining laboratory hygiene. (181 Refs.)

Tags: Animal; Female; **Human** ; Male; Pregnancy
Descriptors: Apicomplexa--physiology--PH; *Encephalomyelitis--parasitology--PS; * **Protozoan** Infections--parasitology--PS; Apicomplexa--classification--CL; Arthropod Vectors; Ascites--parasitology--PS; Encephalomyelitis--transmission--TM; Encephalomyelitis--veterinary--VE; Haplorhini; Immunologic Techniques; Mice; Microbiological Techniques; **Protozoan** Infections--transmission--TM; **Protozoan** Infections, Animal; Rabbits; Rats; Skin Tests; Species Specificity; Terminology; Urine--parasitology--PS
Record Date Created: 19790816
Record Date Completed: 19790816
?logoff hold
16oct03 11:28:37 User228206 Session D2066.2
$6.90 2.158 DialUnits File155
$16.17 77 Type(s) in Format 9
$16.17 77 Types
$23.07 Estimated cost File155
$0.46 TELNET
$23.53 Estimated cost this search
$23.53 Estimated total session cost 2.322 DialUnits

### Status: Signed Off. (2 minutes)

10349442 96151948 PMID: 8554253

**Understanding intestinal spore-forming** protozoa : **cryptosporidia,** microsporidia , **isospora, and cyclospora.**

Goodgame R W
Baylor College of Medicine, Houston, Texas, USA.

Annals of internal medicine (UNITED STATES) Feb 15 1996, 124 (4) p429-41, ISSN 0003-4819 Journal Code: 0372351
Document type: Journal Article; Review; Review, Academic
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: AIM; INDEX MEDICUS

OBJECTIVES: To summarize recent information about the "new" gastrointestinal **protozoal** pathogens (cryptosporidia, **microsporidia** , isospora, and cyclospora) and to help practicing clinicians integrate this information into their clinical databases by emphasizing the similarities among these organisms. DATA SOURCES: Relevant English-language articles published between 1988 and 1995 were identified through a MEDLINE search done using the names of the intestinal spore-forming **protozoa** . Articles cited in the bibliographies of these and other articles were searched manually. STUDY SELECTION: Studies that contained information on the history, taxonomy, life cycle, epidemiology, pathogenesis, clinical manifestations, diagnosis, and treatment of the pathogens were **reviewed** . DATA EXTRACTION: Cryptosporidium parvum, Isospora belli, Cyclospora cayetanensis, Enterocytozoon bieneusi, and Septata intestinalis are intestinal spore-forming **protozoa** that cause intracellular infections, predominantly in the epithelial cells of the intestine. They are transmitted either by stool from person to person or through contaminated water or food by an infectious particle called a spore or oocyst. Asymptomatic infections occur; the most common symptom of infection is diarrhea. Infections have been associated with intestinal inflammation, disordered architecture (such as villus blunting), and abnormal function (for example, malabsorption). Mild to moderate, self-limited diarrhea is common in healthy persons, but patients with immune dysfunction can have severe intestinal injury and prolonged diarrhea. Diagnosis is made by a microscopic examination of the stool and the use of appropriate staining techniques. Effective antibiotic treatment for prolonged infection in immunocompromised patients is available for most of these infections. CONCLUSIONS: The intestinal spore-forming **protozoa** are four frequently identified gastrointestinal pathogens that have important similarities in epidemiology, disease pathogenesis, clinical manifestations, diagnosis, and treatment. (170 Refs.)

Tags: Animal; **Human**

10380460 96185737 PMID: 8602186 Record Identifier: 113534; 00253765

**Antiparasitic drugs.**

Liu L X; Weller P F
Department of Medicine, Harvard Medical School, Boston, MA USA.

New England journal of medicine (UNITED STATES) May 2 1996, 334 (18) p1178-84, ISSN 0028-4793 Journal Code: 0255562
TJ: NEW ENGLAND JOURNAL OF MEDICINE.
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: PIP; POP
Abstract Source: PIP
Record type: Completed
Subfile: AIM; INDEX MEDICUS
(100 Refs.)

Many different infections with **protozoan** and helminthic parasites are common global health problems. Several **protozoa** are responsible for opportunistic infections in patients with AIDS. The newly developed drug, albendazole, has a strong activity against many nematode and cestode parasites. In the case of echinococcosis, it reduces the viability of protoscolices and cysts. Its hepatic metabolite, albendazole sulfoxide, is active against the larval cestodes. In the case of neurocysticercosis, administration of either the standard treatment, praziquantel, or the newly developed drug, albendazole, reduces or eliminates tapeworm cysts in 80-90% of patients. Patients with numerous cysts and those in whom neurologic symptoms or intracranial hypertension develops after therapy against cysticerci should receive adjunctive therapy with dexamethasone. Mass chemotherapy with single doses of albendazole or the older drug, mebendazole, is feasible for school-age children to treat the soil-transmitted helminthiases (ascariasis, hook-worm infection, and trichuriasis). The newly developed drug, ivermectin, is more effective against chronic strongyloidiasis than albendazole. It has been used most extensively against river blindness. It greatly reduces the number of microfilariae in the skin and eyes but has no effect on sclerosing keratitis or chorioretinitis. Both drugs are available in the US on a compassionate-use basis from their manufacturers. Field trials show that ivermectin is also effective against lymphatic filariasis and Mansonella ozzardi. Praziquantel is effective against many trematode and cestode infections. It is the drug of choice for schistosomiasis. Albendazole was effective against giardiasis in children in Bangladesh but ineffective in adult travelers returning from tropical areas. It appears to effect symptomatic improvement of intestinal **microsporidial** infections in patients with AIDS. The newly developed drug, fumagillin, can ameliorate ocular **microsporidiosis** . The newly developed drug, paromycin, treats cryptosporidiosis. Trimethoprim-sulfamethoxazole treats cyclosporiasis and isosporiasis.

Tags: **Human**

10562705 96374589 PMID: 8780816

**Atovaquone is effective treatment for the symptoms of gastrointestinal microsporidiosis in HIV-1-infected patients.**

Anwar-Bruni D M; Hogan S E; Schwartz D A; Wilcox C M; Bryan R T; Lennox J L

Infectious Disease Program, Grady Health System, Atlanta, Georgia, USA.

AIDS (London, England) (UNITED STATES) Jun 1996, 10 (6) p619-23, ISSN 0269-9370 Journal Code: 8710219

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

OBJECTIVE: To report the clinical response to atovaquone in HIV-1-infected patients with symptomatic intestinal **microsporidiosis** . DESIGN: A retrospective **review** of a cohort of AIDS patients with symptomatic intestinal **microsporidiosis** who received atovaquone. SETTING: Infectious Disease Program of the Grady Memorial Hospital, Veterans Affairs Medical Center and private physicians' offices in Atlanta, Georgia. PATIENTS AND METHODS: HIV-1-infected patients (n = 371) were offered a complete stool evaluation and monthly follow-up. Among them, 22 were diagnosed with intestinal **microsporidial** infection using stool smears stained with modified trichrome stain. Species confirmation was made by light microscopy or electron microscopy on small intestinal biopsy specimens in some patients. MAIN OUTCOME MEASURE: Differences in symptoms, number of stools, and body weight were compared before and after a minimum of 1 month of atovaquone therapy. RESULTS: Eight patients received atovaquone treatment. The mean onset of clinical improvement after beginning treatment was 13 days (SEM, +/- 2). The mean number of stools per day decreased from 10 +/- 2.5 to 2 +/- 1 (P = 0.02, paired t test). The mean weight gain was 3 +/- 2 kg. The parasite was continuously present in the repeated stool specimens. However, semiquantitative analysis performed on two patients' stool specimens showed a decreased parasite burden. Four patients underwent small intestinal endoscopy was consistent with Enterocytozoon bieneusi in all four patients. Only one out of these four patients demonstrated a decrease in parasite burden in the biopsy specimen. Ultrastructural analysis performed in another of these four patients following treatment demonstrated the presence of electron-dense granules in spores, suggestive of toxic effects. CONCLUSION: Atovaquone demonstrates promise as a symptomatic treatment for intestinal **microsporidiosis** . A double-blind and placebo-controlled clinical trial is currently in progress.

Tags: Animal; **Human** ; Male

10716986 97066370 PMID: 8909851

**Enterocytozoon bieneusi infection and diarrheal disease in patients who were not infected with** human **immunodeficiency virus: case report and** review .

Wanke C A; DeGirolami P; Federman M

Department of Internal Medicine, New England Deaconess Hospital, Harvard Medical School, Boston, Massachusetts 02215, USA.

Clinical infectious diseases - an official publication of the Infectious Diseases Society of America (UNITED STATES) Oct 1996, 23 (4) p816-8, ISSN 1058-4838 Journal Code: 9203213

Comment in Clin Infect Dis. 1997 Aug;25(2) 344; Comment in PMID 9332548

Document type: Journal Article; Review; Review of Reported Cases

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

We describe the identification of the **protozoan** parasite Enterocytozoon bieneusi in the stool of a patient who was not infected with HIV but who presented with persistent diarrheal disease and severe abdominal complaints. The patient was not infected with HIV but had been noted to have a decreased CD4 cell count since at least 1992 and had had a prior episode of cryptococcal meningitis. The organisms were detected in stool smears with a modified trichrome stain and were identified to the species level by transmission electron microscopy of the stool. The patient responded readily and dramatically to treatment with albendazole, with resolution of symptoms and clearance of the organisms from the stool. Eight or possibly nine other cases of E. bieneusi infection associated with diarrheal disease in individuals who were not infected with HIV were identified in the English-language literature. In two individuals with intact immune function, symptoms were self-limited and diarrheal disease resolved within 2 weeks. The cases summarized herein suggest that E. bieneusi may be more commonly associated with sporadic diarrheal disease than was previously suspected and that the immune system may play a role in the control of this organism within the intestine. (13 Refs.)

Tags: Case Report; Female; **Human** ; Male

Descriptors: Diarrhea--parasitology--PS; *HIV Seronegativity; * **Microsporidiosis** --diagnosis--DI; Adult; CD4 Lymphocyte Count; Child; Child, Preschool; Feces--parasitology--PS; Intestines--immunology--IM; Microscopy, Electron

Record Date Created: 19970227

Record Date Completed: 19970227

11334861 98214697 PMID: 9554079

Microsporidiosis : **molecular and diagnostic aspects.**

Weiss L M; Vossbrinck C R

Department of Pathology, Albert Einstein College of Medicine, Bronx, NY 10461, USA.

Advances in parasitology (ENGLAND) 1998, 40 p351-95, ISSN 0065-308X Journal Code: 0370435

Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

The term ' **microsporidia** ' is a nontaxonomic designation which is used to refer to a group of intracellular parasites belonging to the phylum Microspora. These eukaryotic obligate intracellular **protozoans** have been described infecting every major animal group, especially insects, fish and mammals. They are important agricultural parasites in commercially important insects, fish, laboratory rodents, rabbits, fur-bearing animals, and primates. There is now an increasing recognition of **microsporidia** as important opportunistic pathogens in persons infected with the **human** immunodeficiency virus (HIV). **Microsporidia** possess ribosomes with features resembling prokaryotes. Phylogenetic analysis of the rRNA sequence from several of the **microsporidia** suggests that these organisms were early branches in the eukaryotic evolutionary line. The data on these molecular phylogenetic relationships are **reviewed** in this paper. Inroads have recently been made into the molecular biology of these organisms and these data are also presented. Diagnosis of **microsporidia** infection from stool examination is possible and has replaced biopsy as the initial diagnostic procedure in many laboratories. These staining techniques can be difficult, however, due to the small size of the spores. The specific identification of **microsporidian** species has classically depended on ultrastructural examination. With the cloning of the rRNA genes from the **human** pathogenic **microsporidia** it has been possible to apply polymerase chain reaction (PCR) techniques for the diagnosis of **microsporidial** infection at the species level. Both staining and PCR techniques for the diagnosis of **microsporidia** are **reviewed** . (200 Refs.)

Tags: Animal; **Human**

11491516 98375660 PMID: 9709895

**Detection of Enterocytozoon bieneusi in two** human **immunodeficiency virus-negative patients with chronic diarrhea by polymerase chain reaction in duodenal biopsy specimens and** review **.**

Gainzarain J C; Canut A; Lozano M; Labora A; Carreras F; Fenoy S; Navajas R; Pieniazek N J; da Silva A J; del Aguila C

Servicio de Medicina Interna, Hospital Santiago Apostol, Vitoria, Spain.

Clinical infectious diseases - an official publication of the Infectious Diseases Society of America (UNITED STATES) Aug 1998, 27 (2) p394-8, ISSN 1058-4838 Journal Code: 9203213

Document type: Journal Article; Review; Review Literature

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

Intestinal **microsporidiosis** has been associated traditionally with severely immunocompromised patients with AIDS. We describe two new cases of intestinal **microsporidiosis** due to Enterocytozoon bieneusi in **human** immunodeficiency virus-negative adults. Both patients presented with chronic nonbloody diarrhea, and one had intestinal lymphangiectasia as well. Intestinal **microsporidiosis** was diagnosed by evaluation of stool samples, and the specific species was determined by use of polymerase chain reaction (PCR) in duodenal biopsy specimens. To our knowledge, this is the first report of confirmation of E. bieneusi in the intestinal epithelium of HIV-negative individuals by use of PCR in duodenal biopsy specimens. Cases of intestinal **microsporidiosis** in HIV-negative individuals reported in the English-language literature are **reviewed** . These two new cases along with those described previously corroborate the need to evaluate for **microsporidia** in HIV-negative individuals with unexplained diarrhea. (27 Refs.)

Tags: Animal; Case Report; Female; **Human** ; Male; Support, Non-U.S. Gov't

Descriptors: Diarrhea--parasitology--PS; *Duodenum--parasitology--PS; * **Microsporida** --isolation and purification--IP; * **Microsporidiosis** --diagnosis--DI; Adult; Aged; Biopsy; Chronic Disease; DNA, **Protozoan** --isolation and purification--IP; Duodenum--pathology--PA; HIV Seronegativity; **Microsporida** --genetics--GE; Polymerase Chain Reaction

CAS Registry No.: 0 (DNA, Protozoan)

Record Date Created: 19981027

Record Date Completed: 19981027

11773707 99212048 PMID: 10194459

**Molecular techniques for detection, species differentiation, and phylogenetic analysis of** microsporidia .

Franzen C; Muller A

Department of Internal Medicine I, University of Cologne, 50924 Cologne, Germany.Caspar.Franzen@Uni-Koeln.de

Clinical microbiology reviews (UNITED STATES) Apr 1999, 12 (2) p243-85, ISSN 0893-8512 Journal Code: 8807282

Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS; AIDS/HIV

**Microsporidia** are obligate intracellular **protozoan** parasites that infect a broad range of vertebrates and invertebrates. These parasites are now recognized as one of the most common pathogens in **human** immunodeficiency virus-infected patients. For most patients with infectious diseases, microbiological isolation and identification techniques offer the most rapid and specific determination of the etiologic agent. This is not a suitable procedure for **microsporidia** , which are obligate intracellular parasites requiring cell culture systems for growth. Therefore, the diagnosis of **microsporidiosis** currently depends on morphological demonstration of the organisms themselves. Although the diagnosis of **microsporidiosis** and identification of **microsporidia** by light microscopy have greatly improved during the last few years, species differentiation by these techniques is usually impossible and transmission electron microscopy may be necessary. Immunfluorescent-staining techniques have been developed for species differentiation of **microsporidia** , but the antibodies used in these procedures are available only at research laboratories at present. During the last 10 years, the detection of infectious disease agents has begun to include the use of nucleic acid-based technologies. Diagnosis of infection caused by parasitic organisms is the last field of clinical microbiology to incorporate these techniques and molecular techniques (e.g., PCR and hybridization assays) have recently been developed for the detection, species differentiation, and phylogenetic analysis of **microsporidia** . In this paper we **review** **human** **microsporidial** infections and describe and discuss these newly developed molecular techniques. (397 Refs.)

Tags: Animal; **Human** ; Support, Non-U.S. Gov't

Descriptors: *Microspora--genetics--GE; DNA, **Protozoan** --analysis--AN; Microspora--classification--CL; Microspora--isolation and purification--IP ; **Microsporidiosis** --complications--CO; **Microsporidiosis** --diagnosis--DI ; **Microsporidiosis** --therapy--TH; Nucleic Acid Hybridization; Phylogeny; Polymerase Chain Reaction

CAS Registry No.: 0 (DNA, Protozoan)

Record Date Created: 19990429

Record Date Completed: 19990429

13977788 22250805 PMID: 12364371

**History of** human **parasitology.**

Cox F E G; et al

Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London WC1E 7HT, United Kingdom. frank.cox@lshtm.ac.uk

Clinical microbiology reviews (United States) Oct 2002, 15 (4) p595-612, ISSN 0893-8512 Journal Code: 8807282

Document type: Historical Article; Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

**Humans** are hosts to nearly 300 species of parasitic worms and over 70 species of **protozoa** , some derived from our primate ancestors and some acquired from the animals we have domesticated or come in contact with during our relatively short history on Earth. Our knowledge of parasitic infections extends into antiquity, and descriptions of parasites and parasitic infections are found in the earliest writings and have been confirmed by the finding of parasites in archaeological material. The systematic study of parasites began with the rejection of the theory of spontaneous generation and the promulgation of the germ theory. Thereafter, the history of **human** parasitology proceeded along two lines, the discovery of a parasite and its subsequent association with disease and the recognition of a disease and the subsequent discovery that it was caused by a parasite. This **review** is concerned with the major helminth and **protozoan** infections of **humans** : ascariasis, trichinosis, strongyloidiasis, dracunculiasis, lymphatic filariasis, loasis, onchocerciasis, schistosomiasis, cestodiasis, paragonimiasis, clonorchiasis, opisthorchiasis, amoebiasis, giardiasis, African trypanosomiasis, South American trypanosomiasis, leishmaniasis, malaria, toxoplasmosis, cryptosporidiosis, cyclosporiasis, and **microsporidiosis** . (281 Refs.)

Tags: Animal; **Human** ; Support, Non-U.S. Gov't

Descriptors: Helminthiasis--history--HI; * **Protozoan** Infections--history --HI; Civilization; Emigration and Immigration; Evolution; Helminths --isolation and purification--IP; History of Medicine, 19th Cent.; History of Medicine, 20th Cent.; History of Medicine, Ancient; Parasitology --history--HI; **Protozoa** --isolation and purification--IP

Record Date Created: 20021004

Record Date Completed: 20021120

09793927 21601213 PMID: 11737344

**Disseminated infection due to Encephalitozoon cuniculi in a patient with AIDS: case report and** review .

Fournier S; Liguory O; Sarfati C; David-Ouaknine F; Derouin F; Decazes J M; Molina J M

Department of Infectious Diseases, Saint-Louis Hospital, Paris, France.

HIV medicine (England) Jul 2000, 1 (3) p155-61, ISSN 1464-2662 Journal Code: 100897392

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

OBJECTIVE AND METHODS: Infections due to **microsporidia** are increasingly recognized as opportunistic infections in patients with AIDS. We describe here a case of disseminated infection due to Encephalitozoon cuniculi and **review** the literature on this **microsporidial** infection. RESULTS: All 12 patients reported in the literature had AIDS and nine presented with disseminated infection involving the kidneys, sinuses, lungs, brain and conjunctiva. Asymptomatic infection was seen in three patients. **Microsporidia** were detected by light microscopy examination of urine samples in all the cases. Species identification was performed by various genotypic methods or transmission electron microscopy. Eight of 12 patients who received albendazole therapy experienced clinical improvement with documented clearance of spores in five of these eight patients. Two patients relapsed. CONCLUSIONS: E. cuniculi infection should be considered in severely immunocompromised HIV-infected patients with multi-organ involvement and fever, especially when renal failure is present. **Microsporidial** spores are usually seen in urine samples and in the involved organ. Albendazole therapy seems to be effective. (25 Refs.)

Tags: Animal; Case Report; **Human** ; Male; Support, Non-U.S. Gov't

Descriptors: *AIDS-Related Opportunistic Infections--diagnosis--DI; *Brain Diseases--diagnosis--DI; *Encephalitozoon cuniculi--isolation and purification--IP; *Encephalitozoonosis--diagnosis--DI; *Vision Disorders --etiology--ET; AIDS-Related Opportunistic Infections--complications--CO; AIDS-Related Opportunistic Infections--drug therapy--DT; Albendazole --therapeutic use--TU; Antiprotozoal Agents--therapeutic use--TU; Brain Diseases--complications--CO; Brain Diseases--drug therapy--DT; Brain Diseases--radiography--RA; DNA, **Protozoan** --genetics--GE; Encephalitozoon cuniculi--ultrastructure--UL; Encephalitozoonosis--complications--CO; Ence phalitozoonosis--drug therapy--DT; Encephalitozoonosis--radiography--RA; Fatal Outcome; Immunocompromised Host; Middle Age; Polymerase Chain Reaction; Tomography, X-Ray Computed

CAS Registry No.: 0 (Antiprotozoal Agents); 0 (DNA, Protozoan); 54965-21-8 (Albendazole)

Record Date Created: 20011212

Record Date Completed: 20020103